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<b>TRANSMITTAL LETTER</b> (General - Patent Pending)	Docket No. ACE106.02
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In Re Application Of: **RALIEGH G. JENSEN**

Serial No. 09/826,452	Filing Date 04/04/2001	Examiner DEXTER, Clark F.	Group Art Unit 3724
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Title: **TENSIVE CUTTING ASSEMBLY**

TO THE COMMISSIONER FOR PATENTS:

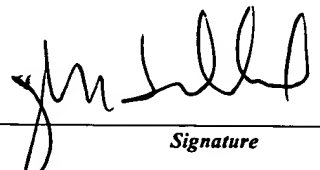
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**APPEAL BRIEF** in triplicate filed in response to Notification of Non-Compliance with 37 CFR 1.192(c) mailed March 30, 2004

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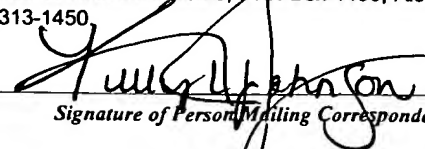
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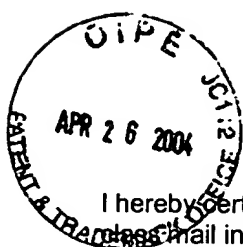
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

INVENTOR: Ralieggh J. Jensen

Confirmation No. 8028

SERIAL NO.: 09/826,452

GROUP ART UNIT: 3724

FILED: 04/04/01

EXAMINER: C. Dexter

SUBJECT: Tensive Cutting Assembly

**APPEAL BRIEF (137 CFR §1.192)**

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Dear Sir:

This Appeal Brief, filed in triplicate, is in support of the appeal dated November 25, 2003 and is Responsive to the Final Office Action mailed 10/29/2003.

**1. REAL PARTY IN INTEREST**

The real party in interest is the applicant, Ralieggh J. Jensen.

**2. RELATED APPEALS AND INTERFERENCES**

Based on information and belief, there are no appeals or interferences that could directly affect or could be directly affected by, or have a bearing on, the decision by the Board of Patent Appeals in the pending appeal.

### **3. STATUS OF CLAIMS**

#### **A. TOTAL NUMBER OF CLAIMS IN APPLICATION**

Claims in the application are: Claims 1-10, set forth in the Appendix.

#### **B. STATUS OF CLAIMS**

- i. Claims canceled: Claim 10 is cancelled.
- ii. Claims withdrawn from consideration but not canceled: None.
- iii. Claims pending: Claims 1 - 9.
- iv. Claims allowed: None.
- v. Claims rejected: Claims 1 - 9.

#### **C. CLAIMS ON APPEAL**

The claims on appeal are: Claims 1 - 9.

### **4. STATUS OF AMENDMENTS**

On October 29, 2003, the Examiner entered the following Claim rejections:

- a) Claims 1, 4 - 8 and 10 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 1,695,761,
- b) Claim 2, was rejected under 35 U.S.C. 103(a) as being unpatentable over Hecker, '761,
- c) Claim 3 was rejected under 35 U.S.C. 103(a) as being unpatentable over Hecker, '761, in view of Stuart, U.S. Pat. No. 1,868,401

A Response to the Office Action mailed May 21, 2003 was filed April 14, 2003. Claims 1, 2, 4, 6, 7, 8 were amended. Claim 10 was cancelled.

On October 29, 2003, the Examiner entered the following rejections:

- a) Claims 8 and 10 [sic] are rejected under 35 U.S.C. 102(b) as being anticipated by Hecker, U.S. Pat. No. 1,695,761 in the final rejection dated October 29, 2003,
- b) Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hecker, U.S. Pat. No. 1,695,761, in view of Stuart, U.S. Pat. No. 1,868,401, and

c) Claims 1 - 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hecker, U.S. Pat. No. 1,695,761 in view of Boos, U.S. Pat. No. 690,512.

## **5. SUMMARY OF INVENTION**

The invention is directed to a cutting head assembly (10) for a food product hydro-cutting system as depicted schematically in Figure 1. Specification, page 7 line 25 – page 33.

Hydro-cutting of food product is generally known in the art and involves directing food product, for instance whole raw potatoes, in a fluid flow through a set of stationary knives to provide slabs or strips, for instance chips or fries. Figure 1 and Specification, page 1, lines 25 – 33.

Tensive cutting assembly 10 includes a tensive cutting head (30) having a first head member or moveable plate (45) adjustably connected to a second head member or monolithic portion (29) including a first raised portion (34). The first moveable plate (45) includes first moveable set of returns (38) and first raised portion (34) includes first fixed set of returns (39). Figure 2 and Specification, pg. 8, Ins. 1 – 9.

Aperture 33 is formed through the cross section of tensive cutting head 30 allowing passage of food product through tensive cutting assembly 10. Figure 2 and Specification, pg. 8, Ins. 29 – 30.

A cutting member (20a) is formed from a strip of sheet metal and includes a plurality of leg segments (23) and a plurality of bends (24) producing a continuous and generally serpentine configuration. Figure 3 and Specification, pg. 9, Ins. 4 – 7.

The cutting member (20a), is positioned about first moveable set of returns (38) and first fixed set of returns (39) with first end (21a) and second end (21b) secured in first clamping assembly (50a) and second clamping assembly (50b) respectively. Figure 2 and Specification, pg. 8, Ins. 9 – 12. Leg segments 23 of the cutting member (20a) extend across aperture (33). Figure 2 and Specification, pg. 10, Ins. 10 – 13.

First moveable plate (45) is held in a slidingly adjustable relationship to first raised portion (34) and inner face (75). A distance between an inner face (75) of monolithic portion (29) and inner face (76) of first movable plate (45) is adjustable using first tension adjustment screw (55a) and second tension adjustment screw (55b). Figure 3 and Specification, pg. 8, Ins. 16 – 20.

## **7. ISSUES**

A. Whether Claims 8 and 10 are properly rejected under 35 U.S.C. 102(b) as being anticipated by Hecker, pn 1,695,761.

B. Whether Claim 9 is properly rejected under under 35 U.S.C. 103(a) over Hecker, U.S. Pat. No. 1,695,761, in view of Stuart, U.S. Pat. No. 1,868,401.

C. Whether Claims 1 - 7 are properly rejected under 35 U.S.C. 103(a) over Hecker, U.S. Pat. No. 1,695,761 in view of Boos, U.S. Pat. No. 690,512.

## **8. GROUPING OF CLAIMS**

Independent claim 1 and dependent claims 2 – 7 are directed to a cutting head assembly for use in a food product hydro-cutting system.

Independent claim 8 and dependent claim 9 are also directed to a cutting head assembly for use in a food product hydro-cutting system.

## **9. ARGUMENT**

**A. Whether Claims 8 and 10 are properly rejected under 35 U.S.C. 102(b) as being anticipated by Hecker, pn 1,695,761.**

Claims 8 and 10 are not properly rejected under 35 U.S.C. 102(b) as being anticipated by Hecker, pn 1,695,761 for two reasons: 1) Hecker is non-analogous art and is not relevant to the issue of patentability of the present invention under either 35 U.S.C. 102(b) or 35 U.S.C. 103(a) and 2) Hecker does not disclose a

cutting head assembly including a cutting member formed of a strip of material including a width

Applicant objects to and challenges the propriety of offering a cheese curd separator or knife as prior art that is analogous to the field of the present invention, cutting head assemblies for hydro-cutting systems. In the first instance a matrix is formed by wrapping a wire about a perimeter of a hand held frame. Hecker 1,965,761, col. 2 lines 1 – 3. The curd cutter is manually moved through a vat of cheese coagulum to break the matter into curds. Hecker 1,965,761, col. 1 lines 1 – 14. Conversely, the present invention is directed to a cutting head that is placed in a hydro-cutting system in a stationary fixture and fluid containing a food product is directed through the assembly. See Application, Figure 1 and the first paragraph of the Detailed Description of the Invention, page 7 line 29 – page 8 line 4.

The determination of whether a prior art reference is within the inventor's field or an analogous art is a factual issue. *In re Clay*, 966 F.2d 656, 658 (Fed.Cir.1992). Courts consider two factors in determining whether prior art is analogous: "(1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." *In re Clay*, 966 F.2d at 658-59.

While at first blush one may contend that both devices are directed to separating food product, the challenges faced in slicing solid food product moving at substantial speed through a hydro-cutting system, such as raw, whole potatoes, (see Application, first line of the first full paragraph of the Detailed Description of the Invention, page 7 line 29), are quite different than those encountered in separating cheese coagulum to break the matter into curds. A cutting member for slicing food product in a hydro-cutter must exhibit substantial strength and rigidity in order to provide consistent and uniform cuts. As such, the cutting member of the present invention is formed of a strip of material with the width aligned substantially parallel to the flow of food product, with the cutting member being tensioned substantially, i.e. in the range of 100,000 psi to 200,000 psi. See Application, page 5 line 24 - 25.

Conversely, a device for separating cheese coagulum into curds by moving the separator manually through a cheese coagulum need not separate the curd with consistent and uniform cuts while withstanding the high impact of a solid food product impacting against the blade array. Rather, the object is simply to separate a non-homogenous body into smaller sections preferably having a range of size equal to about three eighths to one half of an inch. See generally Hecker, col. 3, lines 11 – 16 and col. 4 lines 39 – 43.

The art of separating cheese curds is not analogous to the art cutting food product such as vegetables. Each field of invention presents unique challenges. For instance, one object in separating curd is to provide a device having a cutting member that presents a minimum surface area so that the cheese coagulum does not build up on or adhere to surfaces thereby jamming the cutter or causing there to be formed small bits of curd rather than the desired curd having a range of size equal to about three eighths to one half of an inch. See generally Hecker, col. 3, lines 11 – 16 and col. 4 lines 39 – 43.

Conversely, cutting solid vegetables requires a device including a cutting member that is rigid and that will withstand the pressure of a solid mass forced against the blade to separate the food product in a clean and uniform slice. Those skilled in the art are aware that food product in a hydro-cutting system impacts against the blade assembly at speeds measured on the order of 50 - 60 feet per second. The design requirements and therefore the teachings of the two areas of art are largely non-analogous.

Applicant respectfully submits that the Examiner has applied non-analogous art to support the rejections of both Claim 8 under 35 U.S.C. 102(b), Claim 9 under 35 U.S.C. 103(a) and Claims 1 -7 under 35 U.S.C. 103(a). Applicant respectfully submits that these rejections should therefore be withdrawn.

Additionally, the Examiner failed to establish a prima facie basis for rejection of claims 8 and 10 [sic] under 35 U.S.C. 102(b). Hecker does not disclose a cutting head assembly including a cutting member formed of a strip of material including a

width. Hecker teaches a device for breaking up curds of cheese that employs a wire wrapped about a perimeter of a frame.

In the final Office Action dated 10/29/2003 the Examiner maintains a rejection of independent Claim 8 under 35 U.S.C. 102(b) taking the position that Hecker discloses a cutting member (e.g., 9) having a first end, a second end, a length and a width.

It is the Applicant's position that Hecker discloses a cheese curd separator including a ". . . wire 9 stretched between the sides 2 and between the end 4, and a movable end 10" of the frame. Hecker 1,965,761, col. 2 lines 1 – 3.

When construing the teachings of the prior art, ordinary words are to be given their ordinary meaning. See *Johnson Worldwide Associates, Inc. v. Zebco*, 175 F.3d 985 (Fed. Cir. 1999). In *Johnson Worldwide*, "a court must presume that the terms of the claim mean what they say, and, unless otherwise compelled, give full effect to the ordinary and accustomed meaning of the claim terms." The court characterized this presumption as a "heavy presumption in favor of the ordinary meaning of claim language." See also *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir 2002).

A wire, in the ordinary sense of the word, "wire" is defined as "a usually pliable metallic strand or rod made in many lengths and **diameters**". The American Heritage Dictionary, of the English Language, 1975, American Heritage Publishing Company. Emphasis added. A "strip", again, in the ordinary sense of the word, is defined as "a long, narrow piece, usually of uniform **width**". Ibid. Emphasis added. "Diameter" is of course defined as a straight line segment passing through the center of a figure, especially of a **circle** or a sphere, and terminating at the periphery. Ibid. Emphasis added. "Width" is defined as the state or quality of being wide. The measurement of the extent of something from **side to side**. Ibid. Emphasis added.

It is Applicant's position that a wire is not a strip, circles don't have sides and wire does not have a width.

Claim 8 clearly sets forth a "tensioned blade formed of a **strip** of material, including a first end, a second end, a length, a longitudinal axis and a **width**, the



tensioned blade positioned about the first set of returns and the second set of returns in a serpentine configuration, a leg of the tensioned blade extending across an aperture formed through the cutting head, . . . ". Claim 8 lines 5 – 8, emphasis added.

To constitute a "description" of a patented invention within the meaning of 35 USC § 102(b) the prior publication must describe the invention as claimed in full, clear and exact term so as to allow a person skilled in the art to practice the invention. Vague and general representations are not sufficient to support a defense of anticipation under the law. *Ballantyne Instruments & Electronics, Inc., vs. Wagner*, 345 F.2d 671, 673-74, 145 USPQ 408 (1965). In a rejection based on 35 U.S.C. §102, an applied reference must teach every aspect of the invention, either implicitly, or explicitly. MPEP 706.02. For these reasons, applicant respectfully submits that the Examiner has failed to establish a prima facie case for rejection under 35 U.S.C. §102(b). The present invention does not claim a cutting member formed of a wire and Hecker does not disclose a cutting member formed of a strip of material. Applicant respectfully submits that the rejection under 35 U.S.C. §102(b) should be withdrawn.

Applicant respectfully submits that the Examiner has failed to establish a prima facie basis for rejection of Claim 8 under 35 U.S.C. 102(b) and therefore should be withdrawn.

**B. Whether Claim 9 is properly rejected under under 35 U.S.C. 103(a) over Hecker, U.S. Pat. No. 1,695,761, in view of Stuart, U.S. Pat. No. 1,868,401.**

The Examiner has failed to establish a prima facie basis for rejection of Claim 9 under 35 U.S.C. 103(a) over Hecker, U.S. Pat. No. 1,695,761, in view of Stuart, U.S. Pat. No. 1,868,401. Neither Hecker nor Stuart disclose a cutting head assembly including a cutting member formed of a strip of material.

As provided above Hecker discloses a ". . . wire 9 stretched between the sides 2 and the end 4, and a movable end 10" of the frame. Hecker 1,965,761, col. 2 lines 1 – 3. Similarly, Stuart teaches a wire attached to a frame. See Stuart,

1,868,401, col. 1, lines 39 -42. Insofar as neither Hecker nor Stuart teach a "tensioned blade formed of a strip of material" it is clear that the Examiner has failed to establish a prima facie basis for rejection of Claim 9 under 35 U.S.C. 103(a).

Applicant respectfully submits that the Examiner has failed to establish a prima facie basis for rejection of Claim 9 under 35 U.S.C. 103(a) and therefore the rejection should be withdrawn.

**C. Whether Claims 1 - 7 are properly rejected under 35 U.S.C. 103(a) over Hecker, U.S. Pat. No. 1,695,761 in view of Boos, U.S. Pat. No. 690,512.**

The Examiner has failed to establish a prima facie basis for rejection of claims 1 - 7 under 35 U.S.C. 103(a) over Hecker, U.S. Pat. No. 1,695,761 in view of Boos, U.S. Pat. No. 690,512. Claim 1 is directed to a cutting head assembly including a cutting member formed of a strip of material including a thickness in the range of 0.005 inches to 0.0015 inches and a width in the range of 0.375 inches to 0.625 inches, the cutting member positioned about first second sets of returns in a serpentine configuration.

Hecker does not disclose a cutting head assembly including a cutting member formed of a strip of material including a specified width and thickness. Neither Hecker nor Boos disclose a cutting member positioned about first second sets of returns in a serpentine configuration.

The Examiner takes the position that Hecker lacks only the specific cutting member configuration as well as the specific dimensions thereof and therefore takes official notice that such cutters are old and well known in the art, particularly in the food cutting art. It is the Examiner's position that it would, therefore, have been obvious to one having ordinary skill in the art to replace the wire cutter of Hecker curd separator with the looped blade disclosed by Boos.

Applicant respectfully submits that the Examiner has failed to establish a prima facie basis for rejection of Claim 9 under 35 U.S.C. 103(a) and therefore the rejection should be withdrawn.

To establish a *prima facie* case of obviousness, three basic criteria must be met.

- 1) There must be some suggestion or motivation to modify the reference or to combine reference teachings.
- 2) There must be a reasonable expectation of success.
- 3) The prior art references must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and must not be based on applicant's disclosure. MPEP, 8<sup>th</sup> ed. August, 2001, Latest Revision February 2003, § 706.02(j) citing *In re Vaek*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In rejecting claims 1 - 7, the Examiner has certainly not met the first two criteria.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. *Id.*.

1) The Examiner recites no evidence explicit or implicit of any suggestion or motivation, in the references themselves or in the prior art generally, either to modify the references or to combine one or more of the reference teachings. Instead, the Examiner states, with no supporting evidence, that it would have been obvious to one having ordinary skill in the art to replace the wire cutter of Hecker with a wider cutter such as that disclosed by Boos. This unsupported conclusion is improper according to M.P.E.P § 2143.01 and competent case law.

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F. 2d 680, 16 USPQ 2d 1430 (Fed. Cir. 1990). Here not only is the combination undesirable but such a combination would result in a device that would be useless for either application, i.e. separating curds as opposed to cutting solid food product.

Additionally, as suggested in Section "B", *supra*, the art of separating cheese curds is not analogous to the art cutting vegetables. Each field of invention presents unique challenges. Any motivation to combine teachings is accordingly diminished.

The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ 2d 1161 (Fed. Cir. 1999). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ 2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ 2d 1941 (Fed. Cir. 1992).

A statement that modifications of the prior art to meet the claimed invention would have been "obvious to a person of ordinary skill in the art" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness, without some objective reason to combine the teachings of the references. *In re Leuengood*, 28 USPQ 2d 1300 (Bd. Pat. App. & Inter. 1993).

It has been established that the motivating suggestion for combining or modifying prior art references must be explicit. An invention cannot be found obvious unless there was "some explicit teaching or suggestion in the art to motivate one of even ordinary skill to combine such elements so as to create the same invention." *Winner Int'l Royalty Corp. v. Wang*, 48 USPQ 2d 1139, 1144 (D.C.D.C. 1988). The Examiner offers no evidence of any kind, explicit or implicit, suggesting that it would be desirable to combine the teachings of Hecker and Boos. In the absence of evidence to support combining of the references, the Examiner offers only a conclusion of obviousness. And the conclusion is based on a mistaken concept of the structure of Hecker.

In view of the Examiner's erroneous assumption regarding the motivation for combining the teachings of the art of curd separating with the art of vegetable cutting it must be concluded that the Examiner has impermissibly used "hindsight" to assess the obviousness of claims 1 - 7 since there is no suggestion recited for combining the references. Considering the substantial limitations of the Hecker teaching, there

is no suggestion or motivation whatsoever combining a vegetable cutting blade disclosed by Boos with the curd separator of Hecker.

2) The Examiner has also failed to establish a reasonable expectation of success in serving any objective in combining the teaching of Hecker with the teaching of Boos. Hecker teaches wrapping a wire about the perimeter of a frame. Boos teaches a cutting member formed as a closed or continuous loop. See Boos, col. 2 lns. 66-68 and Fig. III. It would be neither desirable nor functional to wrap the closed loop of Boos around the frame of Hecker. Such an arrangement would present a flat surface against which the food product would impact and build up and therefore would not be functional. Just as unlikely is the prospect of wrapping a wire about the cutting head the present invention with the hope of providing an effective means for cutting a solid food product in a manner that serves the objects of the invention.

Applicant respectfully submits that the Examiner has failed to establish a prima facie basis for rejection of Claims 1 - 7 under 35 U.S.C. 103(a) and therefore the rejection should be withdrawn.

### **CONCLUSION**

The Examiner relies on non-analogous art to support rejections of claims both under 35 U.S.C. 102(b) or 35 U.S.C. 103(a). Hecker discloses a curd separator and is non-analogous art and therefore not relevant to the issue of patentability of the present invention under either 35 U.S.C. 102(b) or 35 U.S.C. 103(a).

The Examiner has also failed to establish a prima facie basis for rejection of Claims 8 under 35 U.S.C. 102(b). Hecker does not disclose a cutting head assembly including a cutting member formed of a strip of material including a width.

The Examiner has also failed to establish a prima facie basis for rejection of Claim 9 under 35 U.S.C. 103(a) over Hecker in view of Stuart as neither Hecker nor Stuart disclose a cutting head assembly including a cutting member formed of a strip of material including a width.

Finally, the Examiner has failed to establish a prima facie basis for rejection of claims 1 - 7 under 35 U.S.C. 103(a) over Hecker in view of Boos as there is no suggestion or motivation to modify the reference or to combine reference teachings or any reasonable expectation of success in such combination. The prior art references do not teach or suggest.

Applicant asserts that the Examiner has failed to present a prima facie case for rejection of Claim 8 under 35 U.S.C 102(b). Accordingly, the burden has not been properly shifted to Applicant to demonstrate, by evidence and argument, that the claimed invention is anticipated by the references applied by the Examiner. The reference applied by the Examiner neither teaches nor provides an enabling description of the present invention as Hecker does not teach a strip of material including a width. Rather Hecker teaches a wire having a diameter which permits the member to be wrapped about a frame.

The Examiner's unsupported conclusions and statements regarding the Examiner's interpretation or understanding of the prior art do not substitute for an enabling disclosure and therefore fail to support a prima facie basis for rejection under 35 U.S.C. 103(a) of Claims 1 – 7.

In view of foregoing, the claims in this application clearly and patentably distinguish over the cited references. Accordingly, the Examiner should be reversed and directed to pass the case to issue.

## 10. APPENDIX

Listing of Claims. This Listing of Claims replaces all prior versions and listings of Claims in the application.

1           1.     (Previously Presented)     A cutting head assembly comprising:  
2           a cutting head including a first head member including a first set of returns,  
3           the first head member adjustably connected to a second head member including a  
4           second set of returns;  
5           a cutting member connected to the cutting head, the cutting member formed  
6           of a strip of material including a thickness in the range of 0.005 inches to 0.0015  
7           inches and a width in the range of 0.375 inches to 0.625 inches, a first end, a  
8           second end and a length, the first end of the cutting member secured to the cutting  
9           head, the length of the cutting member positioned about the first set of returns and  
10          the second set of returns in a serpentine configuration, a leg of the cutting member  
11          extending across an aperture formed through the cutting head and the second end  
12          of the cutting member secured to the cutting head; and  
13          a cutting member tensioning device disposed between and adjustably  
14          engaging the first head member and second head member for adjusting a distance  
15          between the first set of returns and the second set of returns and tensioning the  
16          cutting member.

1           2.     (Previously Presented)     The cutting head assembly of Claim 1  
2           wherein the cutting member tensioning device further comprises one or more cutting  
3           member tensioning screws disposed between and threadedly engaging the first  
4           head member for adjusting a distance between the first set of returns and the  
5           second set of returns for tensioning the cutting member.

1           3.     (Original) The cutting head assembly of Claim 1 wherein the first set of  
2           returns and the second set of returns each comprise a height substantially equal to a

3 width of cutting member for transferring a substantially equal force across the width  
4 of the cutting member.

1 4. (Previously Presented) The cutting head assembly of Claim 1  
2 wherein the first set of returns and the second set of returns each further comprise a  
3 bearing face lying in a plane substantially perpendicular to a longitudinal axis of the  
4 leg of the cutting member extending across the aperture formed through the cutting  
5 head.

1 5. (Original) The cutting assembly of Claim 1 wherein the cutting  
2 member tensioning device adjusts the distance between the first set of returns and  
3 the second set of returns imparting a tensive force in excess of 100,000 pounds per  
4 square inch along the cutting member.

1 6. (Previously Presented) The cutting assembly of Claim 1 wherein  
2 the cutting member tensioning device further comprises a screw including a  
3 longitudinal axis, the longitudinal axis of the screw oriented along a plane  
4 substantially parallel to a longitudinal axis of the leg of the cutting member extending  
5 across the aperture formed through the cutting head, the screw adjustably attaching  
6 the first set of returns and the second set of returns for adjusting a distance between  
7 the first set of returns and the second set of returns for tensioning the cutting  
8 member along a plane substantially parallel to the longitudinal axis of the screw.

1 7. (Previously Presented) The cutting head assembly of Claim 1  
2 wherein the cutting member tensioning device further comprises a pair of screws,  
3 each of the pair of screws including a longitudinal axis, the longitudinal axis of each  
4 of the pair of screws oriented along a plane substantially parallel to a longitudinal  
5 axis of the leg of the cutting member extending across the aperture formed through  
6 the cutting head, and each of the pair of screws adjustably attaching the first set of  
7 returns and the second set of returns for adjusting a distance between the first set of



8 returns and the second set of returns for tensioning the cutting member along a  
9 plane substantially parallel to the longitudinal axis of each of the pair of screws.

1 8. (Previously Presented) A cutting head assembly comprising:

2 a cutting head including a first head member including a first set of returns,  
3 the first head member opposingly and adjustably connected to a second head  
4 member including a second set of returns;

5 a tensioned blade formed of a strip of material, the tensioned blade including  
6 a first end, a second end, a length, a longitudinal axis and a width, the tensioned  
7 blade positioned about the first set of returns and the second set of returns in a  
8 serpentine configuration, a leg of the tensioned blade extending across an aperture  
9 formed through the cutting head, the first end of the tensioned blade secured to the  
10 cutting head by a first end securing member and the second end of the tensioned  
11 blade secured to the cutting head by a second end securing member;

12 the first set of returns each including a face that is oriented substantially  
13 perpendicular to the longitudinal axis of the tensioned blade for exerting a  
14 substantially equal tensile force across a full width of the tensioned blade,  
15 substantially reducing stress risers in the tensioned blade;

16 the second set of returns each including a face that is oriented substantially  
17 perpendicular to the longitudinal axis of the tensioned blade for exerting a tensile  
18 force across a full width of the tensioned blade, substantially reducing stress risers in  
19 the tensioned blade; and

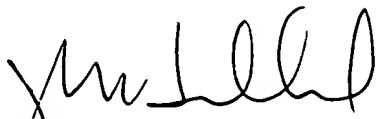
20 a tensioning device including one or more screws disposed between and  
21 adjustably engaging the first head member and the second head member, each of  
22 the one or more screws including a longitudinal axis oriented along a plane  
23 substantially parallel to a longitudinal axis of the leg of the tensioned blade extending  
24 across the aperture, for adjusting a distance between the first set of returns and the  
25 second set of returns and tensioning the tensioned blade along a plane substantially  
26 parallel to the longitudinal axis of each of the one or more screws.

1           9.     (Previously Presented)     The cutting head assembly of Claim 8  
2 wherein the first set of returns and the second set of returns each comprise a height  
3 substantially equal to the width of the tensioned blade for transferring a substantially  
4 equal force across the width of the tensioned blade.

1           10.    (Cancelled)

Date: April 23, 2004

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Joe Holland', written over a horizontal line.

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